

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended): A gas dynamic pressure bearing comprising:
a shaft,
a sleeve whose inner peripheral surface is opposed to an outer peripheral surface of the shaft through a micro-gap, and
a substantially cylindrical hub which applies a surface pressure to an outer side of the sleeve and which is fitted to the sleeve, in which
a dynamic pressure generating groove is formed on at least one of the outer peripheral surface of the shaft and the inner peripheral surface of the sleeve,
wherein $\alpha_1 < \alpha_0 < \alpha_2$, where α_0 , α_1 and α_2 respectively denote ~~[[if]]~~ linear expansion coefficients of the shaft, the sleeve and the hub ~~are defined as α_0 , α_1 and α_2 , respectively, a relation of $\alpha_1 < \alpha_0 < \alpha_2$ is satisfied.~~
2. (currently amended): The gas dynamic pressure bearing as set forth in claim 1, wherein ~~[[if]]~~ a fastening width between the sleeve and the hub at 20°C is defined as δ , and a fitting diameter between the sleeve and the hub is defined as $2R_2$ and a difference between the maximum using temperature and 20°C is defined as ΔT , and the following relation expression (1) is satisfied, ~~and~~
~~if a thickness of the sleeve is defined as t_1 and a thickness of the hub is defined as t_2 , the following relation expression (2) is satisfied:~~
$$2R_2\Delta T (\alpha_2 - \alpha_1) \leq \delta \quad \dots (1).$$
$$t_2/t_1 \geq 0.25 \dots (2).$$

3. (currently amended): A motor comprising ~~having a gas dynamic pressure bearing,~~ comprises:

a shaft;[[,]]

a sleeve whose inner peripheral surface is opposed to an outer peripheral surface of the shaft through a micro-gap;~~and~~

a substantially cylindrical hub which applies a surface pressure to an outer side of the sleeve and ~~which~~ is fitted to the sleeve;~~in which~~

a bracket arranged to fix the shaft;

a stator mounted on the bracket; and

a magnet mounted on the hub and opposed to the stator, wherein

a dynamic pressure generating groove is formed on at least one of the outer peripheral surface of the shaft and the inner peripheral surface of the sleeve, ~~wherein~~ and

$\alpha_1 < \alpha_0 < \alpha_2$, where α_0 , α_1 and α_2 respectively denote [[if]] linear expansion coefficients of the shaft, the sleeve and the hub are defined as α_0 , α_1 and α_2 , respectively, a relation of $\alpha_1 < \alpha_0 < \alpha_2$ is satisfied, and

~~the motor further comprises a bracket for fixing the shaft, a stator mounted on the bracket, and a magnet mounted on the hub such as to be opposed to the stator.~~

4. (currently amended): The motor as set forth in claim 3, wherein ~~in the gas dynamic pressure bearing,~~ [[if]] a fastening width between the sleeve and the hub at 20°C is defined as δ , and a fitting diameter between the sleeve and the hub is defined as $2R_2$ and a difference between the maximum using temperature and 20°C is defined as ΔT , and the following relation expression (1) is satisfied, and

~~if a thickness of the sleeve is defined as t_1 and a thickness of the hub is defined as t_2 , the following relation expression (2) is satisfied:~~

$$2R_2\Delta T (\alpha_2 - \alpha_1) \leq \delta \quad \dots (1).$$

$$t_2/t_1 \geq 0.25 \dots (2).$$

5. (currently amended): A disk apparatus on which a disk-like storage medium capable of storing information is mounted, the disk apparatus comprising: [[;]]

a housing; [[,]]

a motor ~~for spinning the recording disk~~ arranged to spin the disk-like storage medium and fixed inside said housing; [[,]] and

[[and]] a data access ~~means for reading/writing data~~ unit arranged to read information from and/or write information on the recording disks disk-like storage medium, wherein

the motor ~~comprises~~ includes: a shaft; [[,]] a sleeve ~~opposed~~ whose inner peripheral surface is opposed to an outer peripheral surface of the shaft through a micro-gap; ~~and~~ a substantially cylindrical hub which is fitted to the sleeve [[when]] with a surface pressure [[is]] applied to an outer side of the sleeve; [[,]] a bracket fixing the shaft; a stator mounted on the bracket; and a magnet mounted on the hub and opposed to the stator,

~~the motor further comprises a gas dynamic pressure bearing in which a dynamic pressure generating groove is formed on at least one of the outer peripheral surface of the shaft and the inner peripheral surface of the sleeve, and~~

$\alpha_1 < \alpha_0 < \alpha_2$, where α_0 , α_1 and α_2 respectively denote [[if]] linear expansion coefficients of the shaft, the sleeve and the hub ~~are defined as α_0 , α_1 and α_2 , respectively, a relation of $\alpha_1 < \alpha_0 < \alpha_2$ is satisfied~~ [[,]]

~~the motor further comprises a bracket for fixing the shaft, a stator mounted on the bracket, and a magnet mounted on the hub such as to be opposed to the stator.~~

6. (currently amended): A hard disk drive as set forth in claim 5, wherein ~~in the gas dynamic pressure bearing,~~ [[if]] a fastening width between the sleeve and the hub is defined as δ , and a fitting diameter between the sleeve and the hub is defined as $2R_2$ and a difference between the maximum using temperature and 20°C is defined as ΔT , and the following relation expression (1) is satisfied, and

~~if a thickness of the sleeve is defined as t_1 and a thickness of the hub is defined as t_2 , the following relation expression (2) is satisfied:~~

$$2R_2\Delta T (\alpha_2 - \alpha_1) \leq \delta \quad \dots (1).$$

$$t_2/t_1 \geq 0.25 \dots (2).$$